To: Enesta Jones/DC/USEPA/US@EPA[]
From: "EUCI Events" <events@eucievents.com

**Sent:** Wed 7/25/2012 3:34:22 PM

Subject: An Introductory Course on Hydraulic Fracturing, August 27-28

Sign up for our complimentary Energize Weekly newsletter.

Download brochure

Full agenda Instructor Register now

Benchmarking the Performance of Electric and Gas Distribution Utilities

<u>Deepwater Oil & Gas: Regulations & Risk Management</u> <u>Public Relations in Oil and Gas: Managing Perceptions</u>

FERC Natural Gas 101

JobBoard

View it in your browser

<u>here</u>

In-Depth Introduction to Hydraulic Fracturing

August 27-28, 2012 :: Pittsburgh, PA

Sign up for our complimentary Energize Weekly newsletter.

#### Event links

Download brochure

Full agenda

Instructor

Register now

Other events

Benchmarking the Performance of Electric and Gas Distribution Utilities August 6-7, 2012 - Chicago, IL

Deepwater Oil & Gas: Regulations & Risk Management August 20-21, 2012 - Houston, TX

Public Relations in Oil and Gas: Managing Perceptions

August 20-21, 2012 - Denver, CO

FERC Natural Gas 101 October 1, 2012 - Chicago, IL

**EUCI JobBoard!** 

Post job openings, post your resume, and find open positions throughout the energy industry!

JobBoard

Share with colleagues

Please forward this invitation to others who may have an interest in this topic.

Having trouble reading this e-mail? View it in your browser.

Overview

Hydraulic fracturing is a very common technique in oil and gas drilling. Although the idea is simple to understand, the terminology and processes are more complex. Whether you have a financial or engineering background, this course will be beneficial. The course is designed to give a broad overview of how fracturing works, the terminology used, and the processes that are incorporated into hydraulic fracturing. Attendees will walk away from this course with the ability to identify the processes of hydraulic fracturing and articulate the various challenges and issues associated with this drilling technique.

Topics include

# Geology

Classification of rocks

Formation: differentiating formations, time comparison

Porosity and permeability Geological mapping

Creation of oil and gas: identifying and locating "source rock"

### Drilling

What it takes to drill (people, equipment, money, time, etc.) Differences in drilling techniques: cable vs. rotary vs. fracturing

Vertical and horizontal

Casing in drilling

Problems with drilling: cementing, accidents, regulations

Well completion: well stimulation

## Fracturing

Action of fracturing: frac fluid, sand, proppants, flowback

Frac design: amounts, composition, slick water vs. gelled, frac pressure Fracturing (continued)

Shale plays = differences in fracturing (Marcellus vs. Niobrara vs. Barnett vs. Eagle Ford)

Onshore vs. offshore fracturing

Post-treatment reports

Well bore diameter Fracturing horizontal wells

Truths and Myths

Groundwater contamination
Water used for fracturing
Fracturing causing earthquakes
Emissions stemming from fracturing
EPA's Pavillion, Wyoming, report
Current issues facing fracturing

Future of Hydraulic Fracturing

Regulations and transparency "Super fracturing": How deep? How far? Technology developments

Instructed By

#### David K. Dillon

David K. Dillon is the principal of David K. Dillon PE LLC, a petroleum engineering consulting firm located in Centennial, Colorado. He is a licensed professional engineer in Colorado and Wyoming, and he has been a member of the Society of Petroleum Engineers for more than 35 years. Before starting his career as a consulting engineer, Mr. Dillon worked in the private oil and gas industry for 20 years as a drilling engineer, a production engineer, and a reservoir engineer. He has extensive experience in optimizing production from existing fields, secondary recovery operations, and the calculation of reservoir reserves.

## Copyright © 2012 EUCI

If you no longer wish to get these e-mails, you may delete your name from our distribution lists here.